Vermont Mental Health Performance Indicator Project

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MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani
Carol McGranaghan
Janet Bramley

DATE: June 2, 2000

RE: State Hospital and Community Mental Health Utilization in Sixteen States

This week's PIP is a handout from this week's National Conference on Mental Health Statistics. It compares the state hospital and community mental health penetration/utilization rates for sixteen states and explores the relationship between the two.

We look forward to having more comparative data from other states as this Sixteen State Project continues and as more states produce comparable measures of mental health system and program performance.

We look forward to comments, questions, and interpretation of these data. As always, you can reach us at jpandiani@ddmhs.state.vt.us or call 802-241-2638.

State Hospital and Community Mental Health Program

PENETRATION / UTILIZATION RATES

For Sixteen States

By Age, Gender, and Race/Ethnicity

A WORK IN PROGRESS

A Project of the CMHS 16 State Performance Indicator Pilot Project

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The degree to which people in need have access to mental heath services has been a concern of program administrators and evaluators for some time. In the Sixteen State Project, two widely recognized approaches to the measurement of access to care are being used: consumer surveys and penetration utilization rates.

Consumer surveys have the advantage of providing direct feedback from people in need of care. The major shortcoming of consumer surveys for measuring access to care is that they do not obtain information from people who have not gained access to care, and they do not provide measures of the size of the population of people who do not have access to care.

Penetration/utilization rates, on the other hand, provide a basic and powerful measure of the amount of access to care in a geographical region. This measure, however, has at least one major shortcoming. It does not say why variation in access to care exists.

Computation of Penetration/Utilization Rates

There are two basic building blocks for service penetration/utilization rates: an unduplicated count of the number of individuals served during a specified time period, and an unduplicated count of the total number of people at risk. For this project, 15 of the 16 states provided unduplicated counts of the number of people served by their state hospitals (1998 data from the state of Indiana include some duplication of individuals who had multiple admissions during the year.) The patient counts include the total number served and the number of people in age, sex, race/ethnic and clinical categories. Information on the size and characteristics of the general population of each state was obtained from the United States Census Bureau web site: http://www.census.gov/population/www/estimates/st_sasrh.html.

Penetration Utilization rates for both State Hospital and community based programs were derived using the following formula:

((Number of People Served) X (100,000)) ÷ (Total Population).

For the overall statewide rates, the total number of people served and the total population of the states are entered into this formula. For specified sub-populations, the number of people from the specified demographic group who were served is divided by the total number of residents of the state who are members of the specified group.

In order to compare the penetration/utilization rates for two groups, an “odds ratio” that describes the relative risk of one group as compared to the other group is calculated using the following formula:

(Rate for One Group) ÷ (Rate for the Other Group).

The result is the “relative risk” of exposure to treatment for members of Group One as compared to members of Group Two.

Policy Implications of Penetration/Utilization Rates

As with all measures of program performance, penetration/utilization rates must be considered in light of the larger public policy environment, the values underlying the system of care, and the values of the larger society. When the observed penetration/utilization rate for a treatment modality is consistent with public policy and coherent with both service system and larger cultural values, the system of care being evaluated may be said to be performing appropriately. When there is widespread belief that there is a substantial unmet need for a treatment modality, regions with higher utilization rates may be thought of as performing better than regions with lower utilization rates. This may currently be the case for community based mental health services.

The interpretation of penetration/utilization rates for state hospitals is more complex. Although they were once thought of as a progressive reform, state hospitals have more recently become devalued by many advocates and program administrators. In at least some states, lower state hospital utilization rates are considered as evidence of good service system performance.

Penetration/utilization rates for different demographic groups also need to be considered in light of the larger American cultural value of equity. The value of equity demands that people not be treated differently on the basis of personal attributes such as age, gender, and race/ethnicity. Penetration/utilization rates for people in different demographic groups should be similar unless there is a demonstrated difference in need.

Findings

State Hospital Penetration/Utilization

There was substantial variation in rates of state hospital utilization among states. Despite this variation, some clear patterns are evident across states.

State hospital utilization rates for non-white residents, for instance, were substantially higher than state hospital utilization rates for white residents in every state. In the United States, rates of serous mental illness among non-white residents appear to be substantially lower than rates of mental illness among white people. (Kessler et.al. A methodology for estimating the 12-month prevalence of serious mental illness In Manderscheid and Henderson. *Mental Health United States, 1998*. United State Government Printing Office, Washington D.C., 1998)

State hospital utilization rates for men were substantially higher than utilization rates for women in every state. In the United States, rates of serous mental illness for women are higher (about 53% higher) than the rate for men. (Ibid.)

Finally, state hospital utilization by adults (18 years of age and older) was substantially higher than utilization by children in every state.

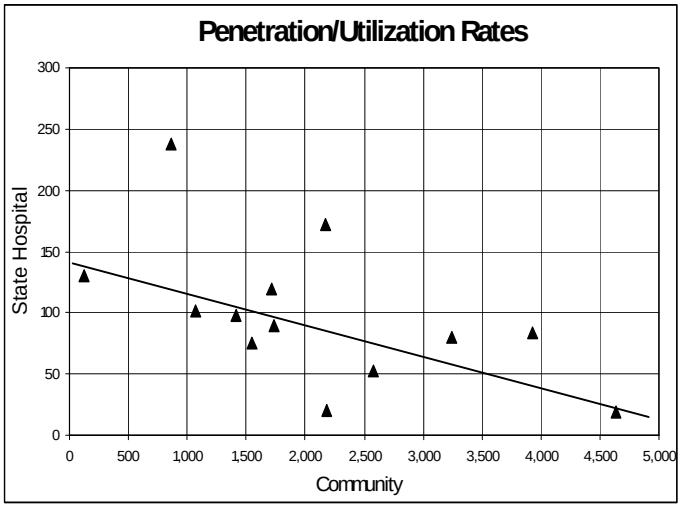
State hospitals, of course, do not represent the totality of inpatient psychiatric care. In many states, the state mental health authority supports inpatient services in other settings (A list of other arrangements in the 16 states is provided in Appendix 2). In all states, inpatient psychiatric care is provided in a variety of other settings. In order to obtain a full profile of behavioral health care penetration/utilization rates, mechanisms for measuring the utilization of these service sectors will need to be developed as well.

Community Mental Health Penetration/Utilization

There was also substantial variation in rates of community mental health program utilization among states. Despite this variation, some clear patterns are evident across states.

As they were for state hospitals, community service utilization rates for non-white residents were substantially higher than community service utilization rates for white residents in every state. There were only small differences between community service utilization rates for men and women, however. Finally, differences in community program utilization by children and adults varied from state to state. In some states, children were served at a higher rate than adults, in some states children were served at a lower rate, and in some states children were not served by programs administered by the state mental health authority. Difference in the structure of human service agencies and differences in the sources of data for this projected to be considered when interpreting these findings. A brief description of the coverage and the data used for community programs is provided in Appendix 1)

States that served more people in community programs had lower state hospitalization rates than states that served fewer people in community settings. For adults in the 15 states in this project (excluding the District of Columbia), the correlation (Pearson's r) between state hospital penetration/utilization rates and community mental health program penetration/utilization rates for FY1999 equals -.568 (p=.043).



Next Steps

Over the course of the coming year, this project will attempt to move our knowledge forward in four areas. The resulting profile of public mental health program penetration/utilization rates across states will help to advance our understanding of the performance of publicly funded mental health service delivery systems in the United States.

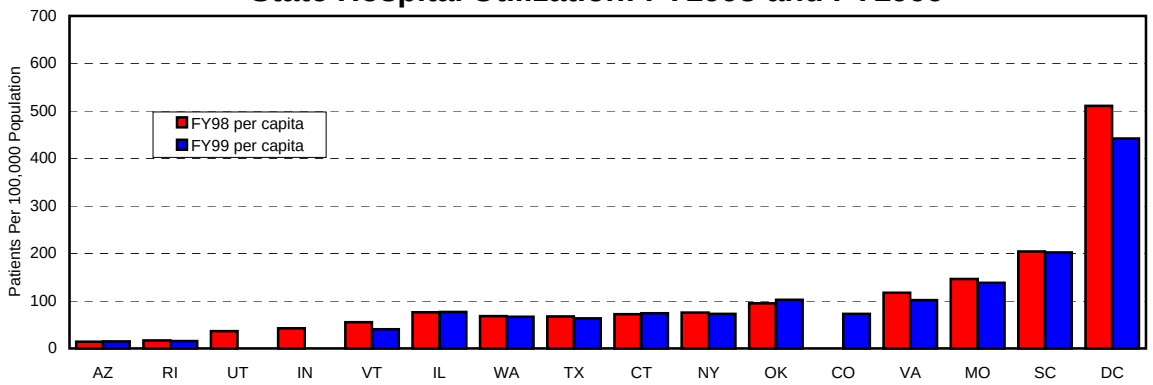
The first and most important task for the coming year will be the examination of penetration/utilization data for FY2000. Production of these rates for community programs for 1998 would also add to the value of the data base that is being constructed for this project. If these data provide a consistent picture of patterns of mental health program utilization, we can have more confidence that the patterns identified here are enduring qualities of our systems of care. If utilization patterns change in consistent ways we should begin to think about emerging trends in patterns of publicly funded mental health program utilization.

The second task that has been identified for this project during the coming year is the addition of a focus on regional variation within states. Some states have already begun to provide regional level utilization data to the project. It is likely that statewide rates mask a great deal of variation among geographical regions within states. It is possible, for instance, that while utilization rates for Washington D.C. are very different from others among the 16 states, they may be very similar to other large cities. Regional data on state hospital and community mental health penetration/utilization rates within states in conjunction with data from other sources will provide the opportunity to measure the relationship between patterns of mental health service utilization, socio-economic characteristics of a region, and the estimated prevalence of serious mental illness.

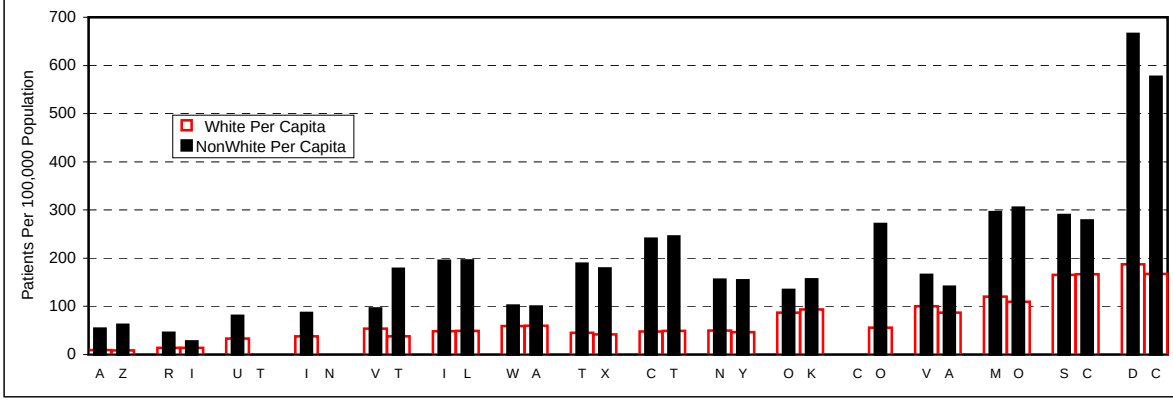
The third task that has been identified for this project during the coming year is to continue analysis of the relationship between penetration/utilization rates for state hospitals and community programs. The results of the analysis of data for one year are suggestive. Analysis of the relationship between community service utilization rates and state hospital utilization rates at the regional level within states over a three year period has the potential to significantly increase our understanding of the functioning of public mental health systems of care. The comparison of this observed functioning to the values underlying the system of care, and the values of the larger society are essential to the development of responsible public policy and the effective administration of service systems.

The final step of this portion of the Sixteen State Project calls for the production of total penetration/utilization rates for public mental health systems in each state. This will require unduplicated counts of the number of people served by community programs, state hospitals, and other inpatient programs directly supported by the state mental health authority.

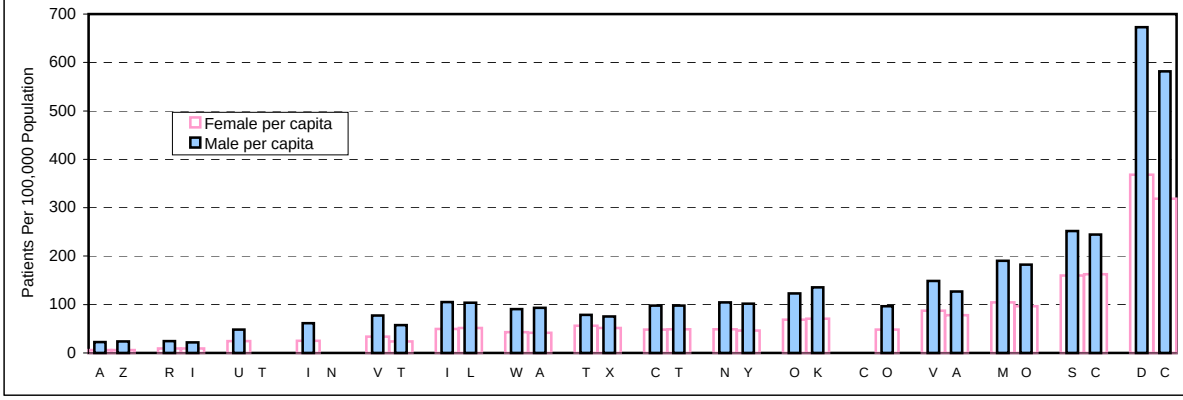
State Hospital Utilization: FY1998 and FY1999



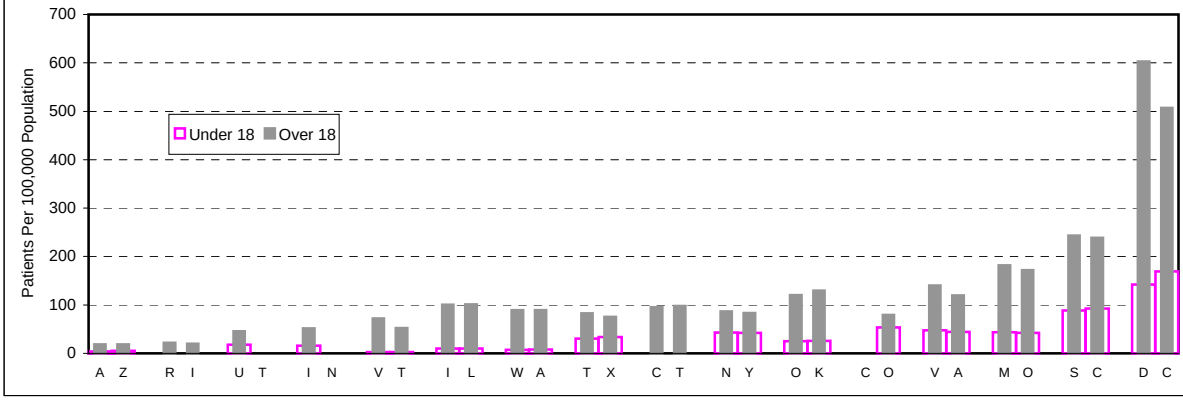
State Hospital Utilization: Non-White & White

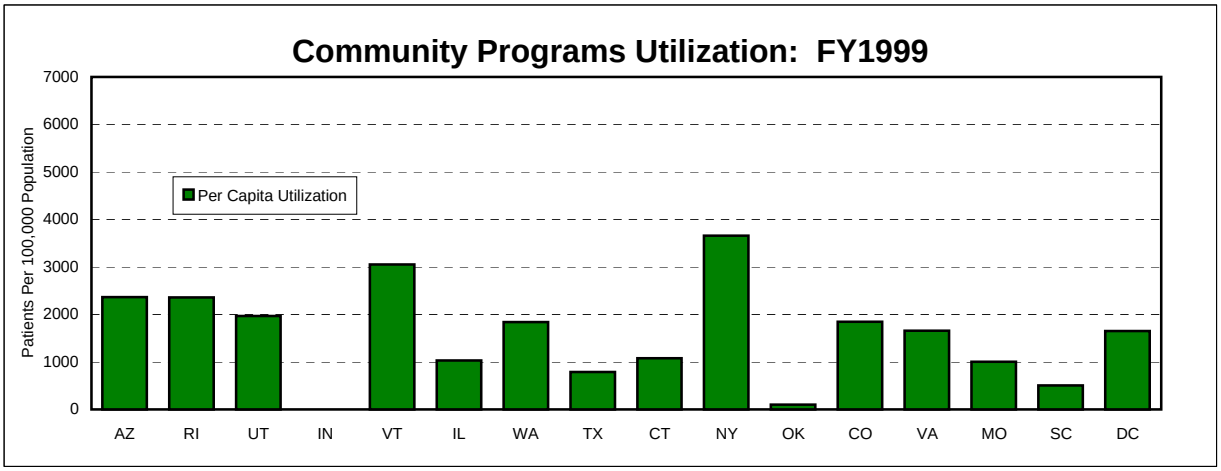


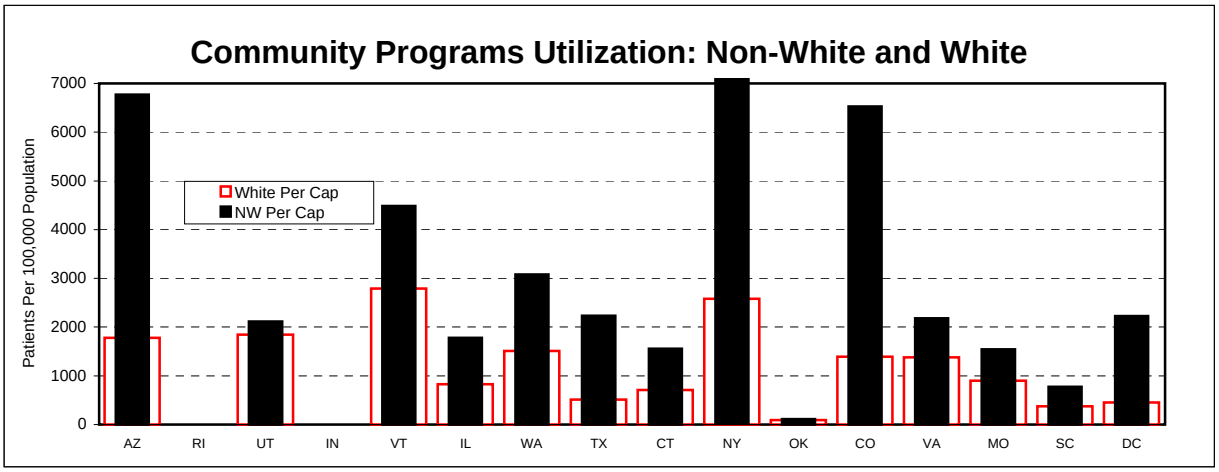
State Hospital Utilization: Male and Female

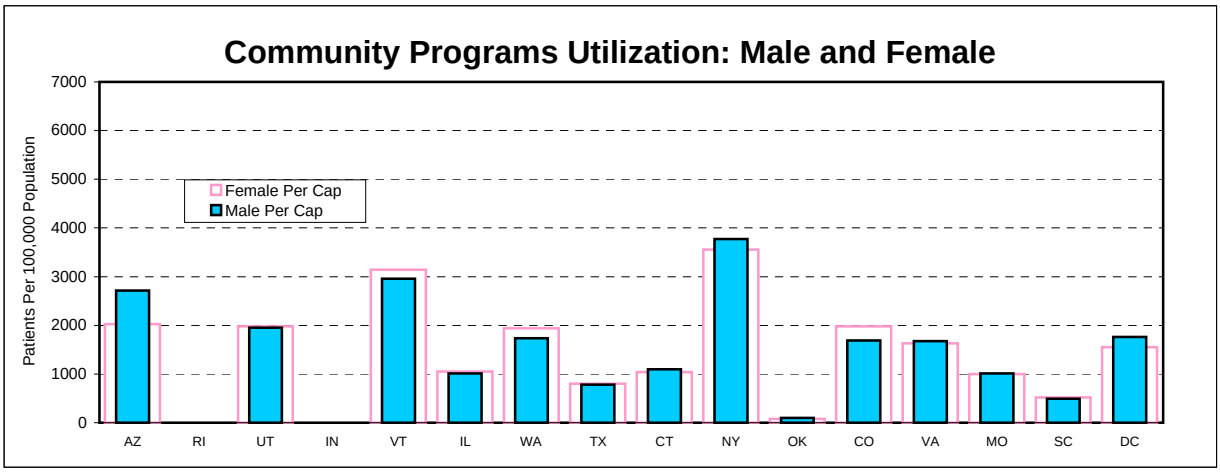


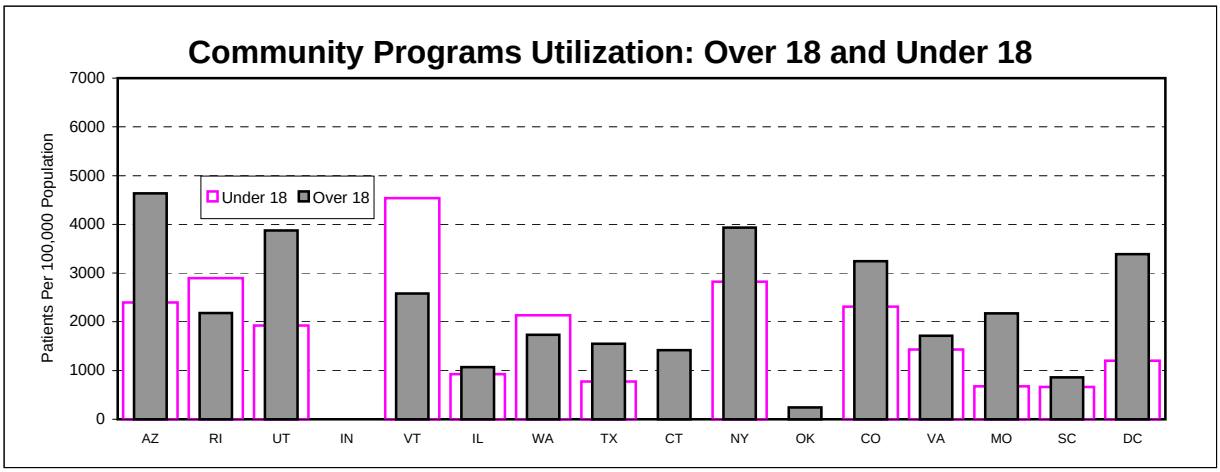
State Hospital Utilization: Over 18 and Under 18




Community Programs Utilization: FY1999
Patients Per 100,000 Population
Per Capita Utilization
7000
6000
5000
4000
3000
2000
1000
0
AZ RI UT IN VT IL WA TX CT NY OK CO VA MO SC DC


Community Programs Utilization: Non-White and White
Patients Per 100,000 Population
White Per Cap
NW Per Cap
7000
6000
5000
4000
3000
2000
1000
0
AZ RI UT IN VT IL WA TX CT NY OK CO VA MO SC DC


Community Programs Utilization: Male and Female
Patients Per 100,000 Population
Female Per Cap
Male Per Cap
7000
6000
5000
4000
3000
2000
1000
0
AZ RI UT IN VT IL WA TX CT NY OK CO VA MO SC DC


Community Programs Utilization: Over 18 and Under 18
Patients Per 100,000 Population
Under 18
Over 18
7000
6000
5000
4000
3000
2000
1000
0
AZ RI UT IN VT IL WA TX CT NY OK CO VA MO SC DC

APPENDIX ONE

Description of Community Based Services Included in Analysis

AZ Figures represent unduplicated counts of people served by community mental health programs.

CT Figures represent unduplicated counts across enrollments in mental health community programs. This number, however, does not include people who might have been seen by crisis teams only.

CO Figures represent unduplicated counts of people served by state funded community mental health centers and clinics. Figures are unduplicated using a constructed unique person identifier that is based on a name fragment (3 letters), date of birth, and gender.

DC Figures represent unduplicated counts of people served by community mental health centers. Figures are unduplicated on the basis of a unique person identifier.

IL Figures represent an unduplicated count of the number of people who received grant-in-aid funded services. People who received services funded exclusively by Medicaid are not included in this count. It is estimated that the reported client counts represent an 11% undercount of the total number of people served by state funded programs.

IN Community service data are not currently available.

MO Figures represent an unduplicated count of comprehensive psychiatric services consumers served in community programs. Unduplicated counts are based on a statewide unique person identifier.

NY Figures represent annualized estimates of the total number of individuals served in the community based programs of the public mental health system. These include all emergency, outpatient, and community support programs that are licensed or funded by New York State. These numbers are based on the 1997 Patient Characteristics Survey, a point-in-time sample of individuals served in the public mental health system. Annualized estimates were created using a procedure developed at the Nathan Kline Institute.

OK Figures include all individuals served by either state operated or contracted community mental health centers in Oklahoma. Figures are unduplicated using a constructed unique person identifier that is based on a first and last initials, date of birth, and gender.

RI Figures include all individuals served by community mental health centers in Rhode Island. These figures include duplication for individuals who were served by more than one community mental health center during the year. Duplication, however, is believed to be rare.

SC Figures represent an unduplicated count of all people served by 17 state run community mental health centers. Unduplication is based on a statewide unique person identifier.

TX Figures represent an unduplicated count of Texas psychiatric outpatients. Unduplication is based on a statewide unique person identifier.

UT Community service data are not currently available.

VA Figures include all individuals served by community services boards. Duplicates are included for individuals served by more than one community service board during the year.

VT Figures represent an unduplicated count of all people who received mental health services through community mental health centers in Vermont during FY1999. Unduplication of person counts across local programs was based on Probabilistic Population Estimation.

WA Figures represent an unduplicated count of all persons who were eligible for and received service from publicly funded mental health outpatient programs. Unduplication is based on a statewide unique person identifier that is based on name, date of birth, social security number, and gender.

APPENDIX TWO

Settings of SMHA Provided or Purchased Inpatient Care in 16 States

AZ	Inpatient services are provided by State Hospitals and by other inpatient facilities.
CT	Inpatient services are provided by State Hospitals and under contract with local general hospitals in Eastern CT and in local general hospitals for General Assistance recipients through managed care contract.
CO	State hospitals account for all inpatient services provided by the state mental health authority.
DC	State hospitals account for all inpatient services provided by the state mental health authority.
IL	Inpatient services are provided by State Hospitals and are purchased from community hospitals.
IN	Inpatient services are provided by State Hospitals and through case rate reimbursement to local community mental health centers.
MO	Inpatient services are provided by State Hospitals and under contract with other facilities.
NY	State hospitals account for all inpatient services provided by the state mental health authority.
OK	Inpatient services are provided by State Hospitals and by state operated and private non-profit community mental health center.
RI	Inpatient services are provided by a state operated general hospital and are purchased under contract with a privately operated psychiatric hospital.
SC	State hospitals account for all inpatient services provided by the mental health authority The system is integrated which results in state facilities being a first line response for inpatient care, especially for indigent and involuntary admissions.
TX	State hospitals account for all inpatient services provided by the state mental health authority.
UT	Inpatient services also provided by local community mental health centers with funding from the state authority.
VA	State hospitals account for all inpatient services provided by the state mental health authority.
VT	State hospitals account for all inpatient services provided by the state mental health authority.
WA	Inpatient services are provided by State Hospitals and under contract with other facilities.